SUMMARY OF EFFECTS OF REFUGES 2003 ALTERNATIVES

EFFECTS OF NO ACTION RELATIVE TO CURRENT SITUATION	EFFECTS OF OTHER ALTERNATIVES RELATIVE TO "NO ACTION" *		
	II. PROPOSED ACTION	III. SANCTUARY	IV. WILDLIFE OBSERVATION
AIR QUALITY SNE Minimal monitoring. Data collected used to evaluate, set conditions, or recommend denials of permits for new pollution sources. Increased burning means short-term, local particulate problems. Drift of pesticides may cause problems in wildlife habitat.	AIR QUALITY MPE Tripling of air quality monitoring stations increases protection of resources on/near refuges. Data from additional stations useful on multiple refuges. More prescribed burning means short term particulate problems, but less risk from more damaging wildfires.	AIR QUALITY MPE Seven-fold increase in monitoring stations. Much less prescribed burning lessens local, short-term particulate loads. Eliminating pesticides on crops and exotic plants lowers windborne toxicants. Offset by higher wildfire potential, with major fire-caused particulates.	AIR QUALITY MPE Three-fold increase in monitoring stations results in increased protection of resources on/near refuges. Pesticide use reduced by half, reducing toxic risk. Slight increase in particulates from prescribed burning offset by reduced wildfire threat.
WATER QUALITY SPE Changes in grazing and haying and new SMA's improve instream flow. Less pesticide use and power boating improve water purity and clarity; improved water supplies in the West assure better quality water is used. Improvements offset by increased fishing disturbance.	WATER QUALITY SPE Reduced/improved farming and enhanced contaminants actions reduce erosion and chemicals. Major new water rights insure quality water. Disturbance and land development from moderate increase in fishing/other uses offset positive effects.	WATER QUALITY MPE No farming/grazing, increased biodiversity management improve watersheds, reducing erosion and nutrients in runoff. Major new water rights provide quality water. Waterfowl concentrations/absence of water management cause some impact on water quality.	WATER QUALITY SPE Greatly enhanced biodiversity and nongame management with restoration of riparian communities reduce erosion/improve instream flow. Most actions improve quality somewhat. Waterfowl concentrations from reduced hunting cause turbidity/nutrient/disease problems.
BIODIVERSITY SPE Some acquisition and greater documentation/mapping of communities somewhat beneficial. Grazing/haying changes improve streamside/aquatic biota and upland vegetation mix; fewer nonwildlife visits improves habitat integrity. Game emphasis, farming offset gains.	BIODIVERSITY MPE Biodiversity/fisheries/wetlands acquisitions, with attention to corridors, inventory, mapping, monitoring, all improve land base and documentation. Grazing/haying modified, farmlands converted to habitat. Major new water rights increase options. T&E/nongame mgmt contributes.	BIODIVERSITY SNE Loss of habitat diversity stems from reduced Wilderness/SMA emphasis and biodiversity initiatives while minimizing use of fire, wetland manipulation, predator control, herbicides, and other controls on succession. Problems offset by by reduction in human disturbance.	BIODIVERSITY SPE Significant new acquisition and management of Wildernes and other SMA's, and increased emphasis on nongame/T&E species management, all increase diversity of System land base. Increased visitation and resulting disturbance offset these gains somewhat.
GAME MAMMALS SPE Inceased SMA/biodiversity actions benefit some/hurt other species, as to grazing, haying, farming, forestry changes. Slightly more manipulation for game management offsets some negative aspects. Less nonwildlife recreation minimizes disturbance.	GAME MAMMALS MPE Less farming/more fire improve upland habitat/forage quality. Somewhat more game management, much more nongame emphasis, create more high quality habitat. Offset by some new manipulated wetlands, flooding of which reduces food resources for some species.	GAME MAMMALS SNE No forestry, fire, other tools mean uncontrolled ecological succession. Subsuccessional stages providing resources to most species reduced. Offset by peripheral habitat and food from biodiversity management; also by ending trapping and reducing recreation disturbance.	GAME MAMMALS SPE Slightly greater use of fire, acquisition/management to promote biodiversity and nongame, benefit game mammals by providing cover, quality forage, and unbroken habitat. Most other management actions generally positive, though none significantly so.

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SMA = Special Management Area
RNA = Research Natural Area

EFFECTS OF OTHER ALTERNATIVES RELATIVE TO "NO ACTION"		
V. ECOSYSTEM MANAGEMENT	**VI. HUNTING/TRAPPING/FISHING**	**VII. MAXIMUM MULTIPLE USE**
AIR QUALITY MPE Seven-fold increase in monitoring stations increases protection on/near refuges. Moderate increase in prescribed burning reduces threat from wildfire but increases particulate loads short-term. Moderate pesticide reduction lowers toxicants locally.	AIR QUALITY MPE Three-fold increase in monitoring stations improves protection on/near refuges. Slight increase in prescribed burning will decrease chance of wildlfires but have no long-term effect on air quality. Pesticide use will remain the same.	AIR QUALITY SNE No increase in monitoring stations on Class I Wilderness. Increased farming, grazing, timber harvest, oil/gas combine with increased recreation and construction/maintenance of roads and facilities for effects.
WATER QUALITY SPE Drastic grazing/haying/farming reductions reduce erosion, nutrient, chemical loads in runoff. Major increase in quality monitoring documents problems. Very significant new water rights assure quality water. Waterfowl concentrations cause localized problems.	WATER QUALITY SPE Somewhat less haying/grazing reduce erosion and nutrient loads, offset by more farming. Some new acquired water rights help quality/quantity. Less nonhunting/nonfishing visitation reduces turbidity and bank erosion, countered by problems from increased fishing.	WATER QUALITY MNE(?) Increased farming, haying, grazing, forestry, oil/gas, and recreation uses degrade runoff and increase turbidity, bank erosion, and general disturbance. Offset by major contaminants initiative, biomonitoring, and doubling of refuges with water rights.
BIODIVERSITY VPE Major new SMA's, improved mapping/monitoring, corridor partnerships, and restoration of communities, all promote diversity. Less grazing/haying, farming, oil/gas development decrease disturbance. Fire, wetland creation/restoration, community monitoring all used.	BIODIVERSITY SNE Game and fish management minimizes biodiversity initiatives. Much enhanced farming/wetlands programs, and some increase in forestry and fire, highlight game needs over diversity needed for nongame and T&E species habitat. Offset by significant Wilderness initiative.	BIODIVERSITY MNE Lack of new SMA's, and reduced community restoration, corridors, and monitoring, all sacrifice biodiversity. Expanded uses create extensive disturbance to species and habitats. Offset by significant emphasis on contaminants and managing nongame for observation.
GAME MAMMALS SPE Doubling nongame management, halving farming, significantly increasing fire enhance habitat and food. Reduced hunting, trapping, predator control increase certain species. Offset by reduced game management and population instability from no hunting.	GAME MAMMALS VPE Much more timber harvest, more prescribed burning, coupled with general game management emphasis, producing subsuccessional habitat for food/cover. Hunting/trapping stabilize numbers. Offset by acreage loss to farming, wetlands. Doubling pred control hurts furbearers.	GAME MAMMALS SPE More forestry and other land management practices would enhance habitat on selected refuges. Offset somewhat by increased grazing/haying, farming, other actions to benefit waterfowl. Also reduced use of prescribed fire may decrease browse/cover in some areas.

LEGEND:

SPE Slight Positive Effect
MPE Moderate Positive Effect
VPE Very Positive Effect

SNE Slight Negative Effect
MNE Moderate Negative Effect
VNE Very Negative Effect

EFFECTS OF NO ACTION RELATIVE TO CURRENT SITUATION	EFFECTS OF OTHER ALTERNATIVES RELATIVE TO "NO ACTION"		
	II. PROPOSED ACTION	III. SANCTUARY	IV. WILDLIFE OBSERVATION
GAME BIRDS SPE Greatest benefit accrues from some increased fire use for habitat improvement, and doubling water rights to increase habitat for migrating and wintering waterfowl. Offset by major increase in visitation, possibly impacting nesting and feeding behavior.	GAME BIRDS SPE Still more fire use and water rights mean more quality habitat. More concern with biodiversity, wetlands, and fisheries indirectly increases quantity and quality of habitat. All offset somewhat by greater focus on nongame/T&E species, major increase in visitation.	GAME BIRDS MNE Loss of tools like grazing/haying, farming, forestry mean habitat loss to ecological succession. No proactive management means no monitoring or data on population change. Negatives offset somewhat by decreased human disturbance, marked contaminants cleanup.	GAME BIRDS SPE SMA management, contaminant clean up, improved grazing and farming practices, together with enhanced use fire benefit most game bird species. Offset by much reduced wetlands and predator control and major emphasis on nongame needs.
NONGAME SPECIES SPE Some new SMA's, enhanced use of fire, reduced grazing, more attention to habitat diversity and reduction of nonwildlife oriented recreation all benefit nongame species. Also more monitoring habitat and populations. Offset some by increase in other recreation visits.	NONGAME SPECIES MPE Much more SMA emphasis, community restoration/inventory, corridors, nongame management, all improve habitat complexity. Some new water rights mean more, better wetlands. Much reduced nonwildlife visitation minimizes disturbance, offset by more visitation.	NONGAME SPECIES SNE Loss of fire, grazing, haying, and wetlands manipulation as management tools simplifies habitats and reduces species diversity. Negatives offset some cessation of farming to increase natural habitats, reducing visitation and thus disturbance.	NONGAME SPECIES MPE Major emphasis on biodiversity and nongame/T&E species, more selective grazing/haying, improved water rights, all promote habitat complexity. More interpretation means more public support for nongame. Offset slightly by disturbance from doubling visitation.
AQUATIC SPECIES SNE Shallow water emphasis for waterfowl, controlling aquatic pests, more fishing disturb habitat and benefit selected species. Offset somewhat by improved water quality from SMA acquisition and management, reduced grazing/haying, enhanced water rights.	AQUATIC SPECIES SPE Emphasis on ecosystem management approach improves instream flows and water quality, benefits multiple species. Biological diversity and T&E species initiative, with more fisheries planning, focuses on nongame species.	AQUATIC SPECIES MPE Management by succession greatly reduces farming/grazing, oil and gas, other activities, reducing nonpoint pollution, and improving water quality and security of water supplies. Offset by deemphasis of water manipulation, which affects selected species.	AQUATIC SPECIES SPE Decreased emphasis on farming, grazing, haying, pesticide use and nonwildlife recreation minimize pollution and disturbance. Emphasis on biodiversity/habitat for nongame, T&E species, protect watershed integrity. Offset by more moist soil units, fewer wetlands.
T&E SPECIES SPE Enhanced biodiversity/contaminants initiatives improve integrity/continuity of unique habitats, benefitting T&E's. Watchable wildlife, neotropical birds programs promote habitat diversity. Offset by much wildlife oriented visitation/continued game focus.	T&E SPECIES MPE Substantive shift to SMA's, biodiversity, nongame. Community restoration, inventory, corridors address biota from genetic to ecosystem levels. Surveys, monitoring, research enhance ability to address candidate species before listing. Offset by increased visitation.	T&E SPECIES SNE T&E management only to protect from jeopardy, far fewer inventories/proactive programs, mean habitat degradation, poor protection due to lack of data. Offset by major water rights acquisitions to improve wetlands, contaminants cleanup, less economic uses/visitation.	T&E SPECIES SPE Increased emphasis on biodiversity and habitat protection, restoration, and improvement for nongame species benefits T&E species. Impacts of most management actions generally positive. Offset by more disturbance from increased visitation.

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EFFECTS OF OTHER ALTERNATIVES RELATIVE TO "NO ACTION"		
V. ECOSYSTEM MANAGEMENT	**VI. HUNTING/TRAPPING/FISHING**	**VII. MAXIMUM MULTIPLE USE**
GAME BIRDS SNE Reduced use of grazing/haying, farming, predator control produce less/poorer habitat. Emphasis, including in wetlands, for biodiversity/T&E species lessens game birds concern. Offset by new water rights and resulting aquatic habitats, less recreation disturbance.	GAME BIRDS VPE Emphasizing game production uses tools like grazing, farming, forestry to improve and diversify habitat. Aggressive wetlands initiative, and new water rights, create new habitats for game birds. Less emphasis on nongame means time and money for game species.	GAME BIRDS MPE Economic use of grazing, haying, farming, timber, directly/indirectly helps in various degrees. Maximizing huntable populations focuses resources, deemphasizing nongame. Offset by less burning, more pesticides, major recreational use, all reducing habitat quality.
NONGAME SPECIES VPE Primary management focus is biodiversity, benefitting full spectrum of biota. Aggressive management yields more corridors, community restoration, improved monitoring. Studies cover wider array of species. Enhanced outreach produces public support for ecosystems	NONGAME SPECIES MNE Deemphasized biodiversity/nongame reduces surveys, monitoring, focused management. Means fewer data, simpler habitats. Sport fish habitats bad for other aquatic species. Habitat disturbance increases. Offset by more selective grazing/haying, less oil/gas use.	NONGAME SPECIES MNE Biodiversity mgmt is not emphasized. Much habitat lost to more grazing/haying, farming. Wetlands/fisheries focus on game species to detriment of nongame. Tripling nonwildlife visitation means much disturbance. Offset some by more nongame management programs.
AQUATIC SPECIES VPE Promoting natural biodiversity shifts fisheries management emphasis from species to communities. Greater emphasis on diversity of nongame and T&E ha bitats includes aquatic systems. Less farming, grazing, pesticides, recreation reduce pollution/disturbance.	AQUATIC SPECIES SNE Management focus on sport fish, waterfowl, furbearers, neglects full range of aquatic species. Farming produces surface disturbance, pollution. Offset by major increase in wetland/moist soil units overall, 50% more acquired water rights to assure adequate quality water.	AQUATIC SPECIES MNE Increased economic use and recreation, less emphasis on habitat enhancement mean multiple disturbance-related problems, pollution, displaced habitats. Offset by doubled contaminants initiative and 50% increase in acquired water rights, both improving water quality.
T&E SPECIES VPE Major SMA additions, land acquisition, protection of full range of ecosystems provide much habitat. Ecosystem focus benefits range of species. Comprehensive surveying, monitoring, applied research assist candidate species before endangered status.	T&E SPECIES MNE Major management emphasis on game species.. Far less T&E management/surveys/monitoring, no candidate species concern, mean few data for decisions. Offset by incidental benefits from game management, enhanced contaminants monitoring, substantially less visitation.	T&E SPECIES SNE T&E concern secondary to game species, economic uses. Deemphasized biodiversity/T&E/ nongame simplifies habitats, reduces monitoring/inventory. Much disturbance from human presence/facilities for hunting, other uses. Offset by biomonitoring/predator control.

LEGEND:

SPE	Slight Positive Effect
MPE	Moderate Positive Effect
VPE	Very Positive Effect
SNE	Slight Negative Effect
MNE	Moderate Negative Effect
VNE	Very Negative Effect

EFFECTS OF NO ACTION RELATIVE TO CURRENT SITUATION	EFFECTS OF OTHER ALTERNATIVES RELATIVE TO "NO ACTION"		
	II. PROPOSED ACTION	III. SANCTUARY	IV. WILDLIFE OBSERVATION
WETLAND HABITAT SPE Enhanced SMAs, acquisition, riparian protection, habitat manipulation, water rights improve diversity of wetlands. Also increased contaminants cleanup. Less swimming/boating improves shorelines/turbidity. Offset as grazing/more fishing disturb soils/plants, water.	WETLAND HABITAT SPE More community restoration/air monitors/contaminants work aid water quality. Enhanced rights mean more water. Removing exotics fishes reduces turbidity, improves species mix. Fewer nonwildlife visits reduce problems, offset by other infrastructure for visitation.	WETLAND HABITAT MNE No community restoration, loss of fire/other management tools, reduce acreage and allow ecological succession to alter character/quality of what remains. Offset some by improvements in water and air quality as monitoring/contaminants cleanup increase.	WETLAND HABITAT SNE Substantially lower acreage of wetlands and major increase in infrastructure for visitation impact wetland habitat. Offset some by increased Wilderness and other SMAs, biodiversity projects, reduced hunting/ trapping/fishing, improved water rights.
TERRESTRIAL HABITAT SPE Increased SMA's maintain habitat integrity, fire-adapted habitats enhanced by reintroduction of fire. Grazing/haying, forestry alter habitats, but community restoration restores complexity. Offset by increase in human disturbance.	TERRESTRIAL HABITAT MPE Significant increase in biodiversity initiatives, natural communities replace some grazing/haying. Enhanced non-game management improves many habitat types. Much less nonwildlife recreation reduces disturbance. Offset by inceased facilities/higher visitation.	TERRESTRIAL HABITAT SPE Diversity, ecological integrity increase as abandoned croplands /pastures follow succession. Some simplification follows at climax. Elimination of visitation/related facilities increases habitat quality. Offset by exotic plant encroachment from reduced pest control.	TERRESTRIAL HABITAT SPE Emphasis on conservation and restoration of biodiversity, nongame management, restore much diversity and integrity to habitats. Much less nonwildlife recreation reduces surface disturbance, offset by doubling of wildlife recreation, with related facilities.
LOCAL ECONOMIES MPE More wetlands/fishing/recreation mean contracting for infrastructure. Rise in fishing /other visits creates jobs/income for guides, restaurants, motels, concessionnaires. Offset slightly by lost income from decline in nonwildlife recreation.	LOCAL ECONOMIES MPE Substantial increase in hunting and fishing days, and major increases in refuge visits mean increases in income and jobs for local economies. Also infrastructural buildup to support these programs means infusion of funds into local economies.	LOCAL ECONOMIES VNE Major loss of current income and jobs results from cessation of refuge hunting, fishing, trapping, recreational opportunities, and secondary economic uses. Also much reduced need for local contracting.	LOCAL ECONOMIES VPE New jobs and major influx of money into local economies result from 46 million new visits annually. Infrastructure buildup means infusion of federal funds. Some income and jobs lost due to declines in hunting, fishing, and nonwildlife visitation.
SOCIAL VALUES SPE Modest SMA, biodiversity, wetlands/water programs, enhance and preserve the environmental ethic. Increased recreation/ education benefits do same. Offset by habitat degradation from petroleum activity, negative feelings about continued predator control/other uses.	SOCIAL VALUES MPE Enhanced SMA/biodiversity/T&E/ nongame programs view favorably by most. Contaminants cleanup eases health concerns. More wildlife recreation contributes to leisure time, offset by loss of nonwildlife recreation to those who value it.	SOCIAL VALUES SNE Lost hunting, fishing, recreational, educational outlets detract from leisure time opportunities and development of environmental ethic. Lack of land/wildlife management viewed negative. Offset by attention to contaminant/water rights.	SOCIAL VALUES SPE Opportunities for increased recreational/educational activities, enhanced by more diverse wild resource, contribute to leisure activities and an environmental ethic. Offset by very reduced opportunities for hunting and fishing for those who value them.

EFFECTS OF OTHER ALTERNATIVES RELATIVE TO "NO ACTION"		
V. ECOSYSTEM MANAGEMENT	VI. HUNTING/TRAPPING/FISHING	VII. MAXIMUM MULTIPLE USE
WETLAND HABITAT VPE SMA/biodiversity/habitat emphasis, major air monitoring, less economic use, more acres/ acquired water, major exotic fish control, few nonwildlife visits all enhance ground cover/runoff/filtering, reduce toxicants/turbidity/disruption. Offset by fishing disturbance.	WETLAND HABITAT SPE More SMA's/less grazing add to watershed integrity. More fire impedes succession. Waterfowl emphasis/new wetlands/acquired water rights mean more clean water. Fewer nonwildlife activities to impede productivity. Offset by increased farming, more fishing disruption.	WETLAND HABITAT VNE Fewer SMA's, less biodiversity hurt watershed integrity. Intense economic use means ground disturbance, runoff pollutants. Fewer wetland acres, more hunting/fishing/recreational intrusions, cause wake damage, litter, noise. Offset by more waterfowl/non-game management.
TERRESTRIAL HABITAT VPE Shift to biodiversity/ecosystem management over individual species or groups. Major declines in grazing/haying and farming, and increased fire management, restore ecosystem function. Corridors link fragmented habitat types. Nongame/T&E efforts enhance total communities.	TERRESTRIAL HABITAT SPE Moderate reduction in grazing/ haying/farming allow limited reestablishment of natural communities. Moderate reduction in wildlife recreation and education reduces disturbance. Offset by expanded hunting/ fishing/nonwildlife recreation associated disturbance.	TERRESTRIAL HABITAT MNE Increased grazing/haying, farming, forestry, oil/gas use, hunting and fishing, and all types of recreation substantially degrade the integrity of virtually all terrestrial habitats.
LOCAL ECONOMIES SNE Reduced grazing/haying, farming, forestry reduces local incomes from from these uses. Losses of jobs and income stem from declines hunting, fishing, and all other types of recreation.	LOCAL ECONOMIES SNE Large reductions in recreation other than fishing and hunting men fewer related jobs and less related economic activity. Offset somewhat by increase in hunting, fishing and related activities, also by infusion of federal funds for wetlands development.	LOCAL ECONOMIES VPE Very significant increases in all economic uses greatly enhance local participation and incomes. Similar increases in hunting, fishing, and all types of recreation create jobs and income for local contractors, guides, concessionaires, other businesses.
SOCIAL VALUES MPE Enhanced SMA/biodiversity/T&E/ nongame programs contribute to that aspect of the human environment. Declines in hunting, fishing and nonwildlife recreation means a loss to those who value it.	SOCIAL VALUES SNE Dramatic increases in consumptive wildife recreation contribute greatly to leisure time of those who participate. Offset by major lost recreation/education opportunities to others, and by negative feelings of many about continued predator control and trapping.	SOCIAL VALUES MNE Heavy emphasis on economic use leads to concerns about exploitation of public land resources and conflicts with refuge purposes. Offset some by multiple recreational and economic opportunities for all interests.

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SPE	Slight Positive Effect
MPE	Moderate Positive Effect
VPE	Very Positive Effect
SNE	Slight Negative Effect
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EFFECTS OF NO ACTION RELATIVE TO CURRENT SITUATION	EFFECTS OF OTHER ALTERNATIVES RELATIVE TO "NO ACTION"		
	II. PROPOSED ACTION	III. SANCTUARY	IV. WILDLIFE OBSERVATION
WILDLIFE ORIENTED RECREATION SPE Continuing acquisition, fishing initiative, hunting on some new refuges, and expansion of other wildlife recreation/education mean new opportunities. Offset by reduction or cessation of many nonwildlife recreational activities.	WILDLIFE ORIENTED RECREATION MPE More acquisition, especially in urban areas, enhanced fishing opportunities, and a rise in educational opportunities increase visits substantially. Offset by reduction or cessation of many nonwildife activities.	WILDLIFE ORIENTED RECREATION VNE Eliminating hunting, fishing, trapping, and nonwildlife recreation outside Alaska and reducing other wildlife-oriented recreation by 75%, removes most recreational/ educational opportunities.	WILDLIFE ORIENTED RECREATION VPE Wildlife-oriented visits other than hunting and fishing almost triple. Visitor centers, many in highly used urban settings, more than double. Offset by decreased hunting and fishing opportunities.
NONWILDIFE ORIENTED RECREATION MNE Deemphasis or elimination of such activities produces one-quarter decline in refuges permitting them and 43% decline in visitation. Offset somewhat by increased opportunities in Alaska.	NONWILDIFE ORIENTED RECREATION VNE Elimination of all uses under Service control means 75% fewer visits. Uses on new acquisitions are very restricted.	NONWILDLIFE ORIENTED RECREATION VNE Nonwildlife-oriented recreation eliminated on refuges outside Alaska.	NONWILDLIFE ORIENTED RECREATION VNE Elimination of all uses under Service control means 75% fewer visits. Uses on new acquisitions are very restricted.
WILDERNESS AND SMA'S SPE RNA's increase from 208 to 240, other SMA acreage by 11 million. Management emphasis on biodiversity, viewing SMA's as repositories of special resources, enhances emphasis overall. Fewer non-wildlife oriented uses substantially reduces impacts to SMA's.	WILDERNESS AND SMA'S SPE Moderate 10% growth in number of SMA's, tripling of air quality monitoring stations, and management emphasis on biodiversity, all positive. New designations include three Scenic Rivers. Enhahced mgmt of SMAs in concert with other land managers.	WILDERNESS AND SMA'S VNE New designations and existing management programs cease. Biodiversity declines as ecological succession progresses within many existing SMA's. Offset slightly by improvements in air quality monitoring in remaining Wilderness.	WILDERNESS AND SMA'S MPE Wilderness increases about 60%, RNA's almost double, and three Scenic rivers. Slightly offset by pressure from greatly enhanced wildlife-oriented visitation.
CULTURAL RESOURCES MNE Aquisition continues without increased protection of new sites. Grazing/farming/fire, other surface disturbances continue. Increased wildlife visitation means increased vandalism. Offset by education and reduced nonwildlife recreation.	CULTURAL RESOURCES SPE Increased inventories, reduced nonwildlife recreation, and increased education efforts improve protection somewhat. Offset by acquisition of urban tracts with more historical sites.	CULTURAL RESOURCES SPE Cessation of virtually all surface disturbance, including most visitation, reduces loss of site integrity and vandalism. Offset somewhat by lack of good inventory strategies to locate, classify, and rank sites for protection.	CULTURAL RESOURCES MPE New SMA designations mean more inventory, less grazing/haying and farming reduces surface disturbance. Increased wildlife-oriented visitation provides for education of the public. Offset by more land disturbance for habitat and facilities.

EFFECTS OF OTHER ALTERNATIVES RELATIVE TO "NO ACTION"		
V. ECOSYSTEM MANAGEMENT	**VI. HUNTING/TRAPPING/FISHING**	**VII. MAXIMUM MULTIPLE USE**
WILDLIFE ORIENTED RECREATION SNE Significant reductions in hunting, trapping and fishing opportunities. Refuges open to other wildlife-oriented visits remains static, but reduced program emphasis. Offset some by increased acquisition/SMAs.	WILDLIFE ORIENTED RECREATION SPE Major increase in opportunity for hunting, trapping and fishing. Offset some by reduction in visitor facilities and reduced wildlife-oriented visitation. Also by loss of most nonwildlife recreational activities.	WILDLIFE ORIENTED RECREATION SPE Intensive management yields maximum harvest for sportsmen, increased viewing opportunities for other visitors. Also incudes a four-fold increase in nonwildife recreation. Offset by conflicts between users.
NONWILDLIFE ORIENTED RECREATION VNE Elimination of all uses under Service control means 75% fewer visits. Uses on new acquisitions are very restricted.	NONWILDLIFE ORIENTED RECREATION VNE Elimination of all uses under Service control means 75% fewer visits. Uses on new acquisitions are very restricted.	NONWILDLIFE ORIENTED RECREATION VPE Total visitation for nonwildlife activities increases four-fold. Refuges allowing such uses more than double. Concessionaire development encouraged.
WILDERNESS AND SMA'S VPE Greatest increase in SMA's under any alternative. Wilderness acreage almost doubles/ RNA's double. Air quality is monitored on 21 Class I areas. Wilderness managed in ecosystem context with other land managers.	WILDERNESS AND SMA'S SPE Moderate growth in SMA's. New designations include three Scenic Rivers, 50% more RNA's. Offset by less emphasis on biodiversity. Some impacts from increased hunting/fishing, other wildlife recreation.	WILDERNESS AND SMA'S VNE Slight growth in Wilderness, none in RNA's. All areas are impacted by significantly higher visitation and expanded uses around SMA boundaries.
CULTURAL RESOURCES SPE Reduced nonwildlife recreation reduces vandalism. Less farming means less site disturbance. Offset slightly by disturbance from increased fire and wetlands development.	CULTURAL RESOURCES SPE Greater emphasis on inventory and designation of SMA's leads to recording new sites, also provides direct protection from development. Fewer visitors mean less vandalism, and accelerated Systemwide inventory provides more data.	CULTURAL RESOURCES MNE Greater surface disturbance from intense economic uses and increased wetland development harms integrity of sites. More visitation, especially nonwildlife recreation, increases possible vandalism. Offset somewhat by less fire and more education.

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